

ABSTRACT

The invention relates to a novel approach to containing and removing toxic waste from a subsurface environment. More specifically the present invention relates to a system for containing and removing volatile toxic chemicals from a subsurface environment using differences in surface and subsurface pressures. The present embodiment generally comprises a deep well, a horizontal tube, at least one injection well, at least one extraction well and a means for containing the waste within the waste zone (*in-situ* barrier). During operation the deep well air at the bottom of well (which is at a high pressure relative to the land surface as well as relative to the air in the contaminated soil) flows upward through the deep well (or deep well tube). This stream of deep well air is directed into the horizontal tube, down through the injection tube(s) (injection well(s)) and into the contaminate plume where it enhances volatilization and/or removal of the contaminants.